Remarks

I. The Amendment to the Claims

Claim 94 has been amended to recite that the trailing magnetically soft layer is laminated. Support for this amendment can be found in the specification on page 6, lines 6-8, and in FIG. 5, for example.

New claims 143-160 have been added to recite disk drive embodiments. Support for this amendment can be found in the specification on page 19, line 7 – page 20, line 8, and in FIG. 22, for example.

Because the total number of claims is less than that previously paid for, and because the number of independent claims is less than that previously paid for, there is no fee due for the new claims.

II. Response to the Office Action

The Office Action rejects claims 1, 12, 82, 84-92, 94-101, 121 and 123-127 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,583,954 to Sasaki.

On page 8, the Office Action states:

> With respect to the rejection utilizing Sasaki (US 6,583,954), the applicants argues that "a Declaration of Kenneth E. Knapp under 37 C.F.R. §1.131 ... obviates this rejection." This argument, however, is not found to be persuasive for the following: The declaration does not specify that the invention as now claimed in amended claim 1 was conceived at least as early as May 29, 1999. As the amendment and declaration were submitted simultaneously, it is unclear as to whether the declaration references independent claim 1 before or after the amendment was made. Furthermore, the evidence submitted only details "SUB-0.5 um NARROW TRACK" and not the specific ranges set forth in amended independent claim 1. Therefore the evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Sasaki (US 6,583,954) reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897).

Accompanying this Amendment is a Declaration of Kenneth E. Knapp under 37 C.F.R. § 1.131, dated April 12, 2004, which obviates this rejection.

Note initially that this Declaration specifies that the invention defined in independent claim 1 was conceived at least as early as May 24, 1999.

Further note that, although the exact range in width for the magnetically soft layer recited in claim 1 is not explicitly shown in this piece of corroborating evidence, such exactitude is not necessary to establish conception. As stated in the recent case of In re Jolley, 64 USPQ 2d 1901, 1904 (Fed. Cir. 2002), quoting Townsend v. Smith, 4 USPQ 269 (CCPA 1929):

> It is therefore the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice that constitutes an available conception within the meaning of the patent law. A priority of conception is established when the invention is made sufficiently plain to enable those skilled in the art to understand it.

Applicants respectfully assert that it is clear that the invention defined by claim 1 has been made sufficiently plain by the corroborating evidence to enable those skilled in the art to understand it.

> Conception is the 'formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.'" *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376, 231 USPQ 81, 87 (Fed. Cir. 1986) (quoting 1 Robinson on Patents 532 (1890)). An idea is sufficiently "definite and permanent" when "only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." *Burroughs Wellcome*, 40 F.3d at 1228.

Ethicon Inc. v. United States Surgical Corp., 45 USPQ2d 1545, 1548 (Fed. Cir. 1998). Applicants respectfully assert that only ordinary skill would have been necessary to reduce the invention to practice, without extensive research or experimentation, in light of the corroborating evidence provided.

It is common in the art of magnetic heads to fabricate layers having a thickness that is less than ten nanometers. Exchange coupling layers of ruthenium, for instance, are typically formed to a thickness of about eight angstroms. Tunnel barrier layers of alumina are known to be formed to a similar thickness. Thus, the twenty angstrom lower

bound of the range recited in claim 1 is clearly within the level of ordinary skill in the art, in view of the conception evidence submitted.

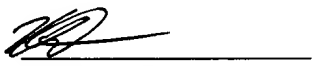
Applicants respectfully assert that the upper bound is also clearly within the level of ordinary skill in the art, in view of the conception evidence submitted. The "TRACK WIDTH" shown in Sheet VIII of the corroborating evidence can be seen to be smaller than the thickness of the "WRITE GAP" shown in that sheet. As noted in U.S. Patent No. 6,317,289 to Sasaki et al., "a known typical thin film magnetic head" includes "a write gap layer 8 made of a nonmagnetic material such as alumina to have a thickness of about 200 nm (column 2, lines 13-55). Therefore, applicants respectfully assert that the trailing magnetically soft layer shown in Sheet VIII and Sheet IX of the corroborating evidence has a width measured in a direction substantially parallel to the amagnetic write gap layer shown in those sheets, the width being less than about two hundred nanometers.

Therefore, applicants respectfully assert that the corroborating evidence provided along with the Declaration of Kenneth E. Knapp demonstrates conception of the invention defined by claim 1, as required by law.

III. Conclusion

Applicants have responded to each item of the Office Action, and respectfully request reconsideration of the pending claims. Applicants believe that the claims are in condition for allowance, and a Notice of Allowance is solicited.

Respectfully submitted,



Mark Lauer
Reg. No. 36,578
6601 Koll Center Parkway
Suite 245
Pleasanton, CA 94566
Tel: (925) 484-9295
Fax: (925) 484-9291

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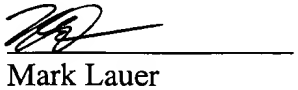

Mark Lauer